

## Minnesota Department of Natural Resources

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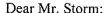
August 30, 2006

Mr. Bill Storm
Minnesota Department of Commerce
85 7<sup>th</sup> Place, Suite 500
St. Paul, MN 55101-2198

RE: Excelsior Energy, Inc. Mesaba Energy Project

**Environmental Impact Statement Scoping Document** 

PUC Docket#E6472/GS-06-668



The Department of Natural Resources (DNR) has reviewed the Environmental Impact Statement (EIS) Scoping Document for the proposed Excelsior Energy, Inc. Mesaba Energy Project in northeastern Minnesota. We offer the following comments for your consideration.

## Recreational Resources

The DNR recommends that a Recreational Resources subsection be added to the Draft EIS scope. Recreational resources in the area should be evaluated in Section 3: Affected Environment, and if applicable in Sections 4 and 5 on Environmental Consequences.

One such issue the DNR recommends be evaluated in this new subsection would be the public access to Canisteo Pit and its proximity to the Lind Pump outfall structure. This access is heavily used by the public for fishing and recreational access to the pit surface. It is important that recreational users of the Canisteo Pit maintain their access opportunities.

## Section 4.5: Environmental Consequences – Water Resources

Construction of overhead High Voltage Transmission Lines can cause erosion from the cleared right of way. Any potential surface water effects should be evaluated in the Draft EIS.

Preferred and alternative pipeline routes need to be evaluated for potential impacts to stream and/or wetland crossings (Section 4.7). If directional boring is the crossing technique chosen, the impacts are likely considerably less than a standard open-trench crossing technique. If directional boring is not selected as a crossing method, the Draft EIS should provide justification for the alternative method.

Storm water management during construction is essential to protect surface waters in the project vicinity from high sediment loads that have the potential to accumulate or otherwise impact streams and lakes.

Holman Lake currently does not receive any water discharge from the source waters. Cooling tower blowdown directed to Holman Lake will result in a net increase in concentration and mass of constituents. The DNR recommends impacts to water quality and quantity, in relation to geomorphologic changes to streams, be evaluated. Additionally, the introduction of Prairie River water to Lind Pit and ultimately Canisteo Pit is a net increase in mass and concentration for some constituents. The DNR recommends the Draft EIS evaluate potential impacts to Holman Lake, Canisteo Pit and area streams.

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Table 3.4-23 of the Joint Permit Application (West Range Outfalls) indicates the anticipated effluent water quality with 5 COC for Total P to be 0.07 ppm. While this may be below the effluent standard it is higher than the existing concentration in both Canisteo Pit and Holman Lake. This value is higher than the ecoregion standard and the impact to water quality, particularly algae blooms and water clarity. The DNR recommends the Draft EIS thoroughly evaluate the potential water quality impacts of higher sulfate and phosphorous inputs.

Additionally, the Joint Permit Application references the link between sulfate and mercury and states that "However, as with mercury, no additional mass of sulfate will be discharged to the Swan Lake watershed..." The discharges are all outside of the Swan Lake watershed but within the Swan River watershed. Again, the introduction of Prairie River water and other sources, except for Hill-Annex, are new sources to the Swan River watershed in relation to existing conditions. The DNR recommends the Draft EIS evaluate the link between mercury methylization and higher concentrations of sulfates.

If permanent or temporary dewatering systems are required for water table control, what effect will this have on water tables off-site and will there be any impacts to surface waters as a result? Could this site dewatering be used to replace or reduce the amount of Prairie River water needed?

Another potential water resources impact that could be evaluated in the Draft EIS is the diversion of Hill-Annex water from the Panasa Lakes to Canisteo. Specifically, the reduction in flow may have geomorphologic impacts on both the inlet and outlet streams at Panasa. Also, the elimination of this flow to Panasa Lakes may have water quality impacts. The Draft EIS should evaluate whether it may be necessary to augment some flow to Panasa to avoid and minimize these impacts.

The Draft Application identifies Canisteo Pit and Holman Lake as the only two receiving waters for cooling water blowdown on the West Range Site. The Joint Permit Application and subsequent environmental analysis should evaluate adding Prairie River as a third option to receive discharge, and what the ecological effects may be under that scenario. The high concentration of dissolved solids in the cooling water blowdown and repeat discharges could affect Canisteo Pit water quality. The Joint Permit Application and subsequent environmental analysis should evaluate whether there is any risk of contaminating groundwater in the area. The Prairie River appears to have the ability to flush and dilute cooling water blowdown discharge.

Additional daily discharge volume from the power plant could have adverse physical effects on receiving streams. Increased bank erosion, higher flood levels, stream channel widening, or streambed down cutting are potential hydrological impacts. The Draft EIS needs to determine what the projected water volume increases presented in Table 3.4-21 mean for Canisteo Pit, Holman Lake, and the Prairie River; and identify other potential cumulative effects downstream.

Individual or combinations of the various major ions found in the effluent from the Mesabi Project could be considered toxic to aquatic life forms. Recent research using fresh water cladocerans in Whole Effluent Toxicity (WET) testing demonstrated that the relative acute toxicity of ions (i.e., most toxic to least toxic) were potassium > bicarbonate > magnesium > chloride > sulfate > bromide (SETAC 2004). Because values for potassium, bicarbonate, and magnesium were missing from Table 3.4-23 in the Joint Permit Application, characterizing the potential toxicity for all ions in the discharge water is not possible. This additional data should be provided in the Draft EIS.

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## Section 3.6.2: Environmental Consequences – Flood Hazard Areas

The DNR recommends the Draft EIS provide an analysis of the environmental and socio-economic benefits and costs of selecting the West Range site as the best means of addressing flooding issues in the area.

Thank you for the opportunity to review the Scoping Document. We look forward to receiving the Draft EIS. Please contact me with any questions regarding this letter.

Sincerely,

Matt Langan, Environmental Planner Environmental Review Unit

Division of Ecological Services

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